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Disclosure

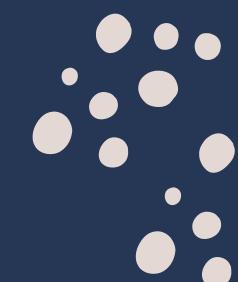
Dr. Elizabeth Skoy has no relevant financial relationships with ineligible companies to disclose.



ABOUT THE SPEAKER

Elizabeth Skoy, PharmD, RPhA, FAPhA, is a Professor at NDSU and the Director of the Center for Collaboration and Advancement in Pharmacy (CAP Center). As part of her faculty position, she has a community pharmacy practice site where she continues to engage in routine pharmacy patient care. Dr. Skoy has represented the pharmacy profession through various agencies including the FDA, CDC, and the American Pharmacist Association. Most recently, Dr. Skoy was named to serve on the Advisory Committee on Immunization Practices (ACIP) Workgroup for adult RSV vaccines.





WHAT YOU WILL LEARN

01

Identify common questions and concerns adults have about routine and seasonal vaccines.

02

Describe effective communication strategies for discussing adult vaccines with patients.

03

Explain the role of the healthcare provider in initiating and navigating vaccinerelated conversations with adult patients confidently.

You need vaccines throughout your life!

Want to learn more?

Scan this QR code to find out which vaccines you may need. Or visit: www2.cdc.gov/nip/adultimmsched/



2025 Recommended Immunizations for Adults Aged 19 Years and Older

Staying **up to date** on your vaccines is one of the best things you can do to protect your health.

If you are pregnant or have a medical condition that puts you at higher risk

for infections, talk to your health care provider about which vaccines are right for you.

KEY



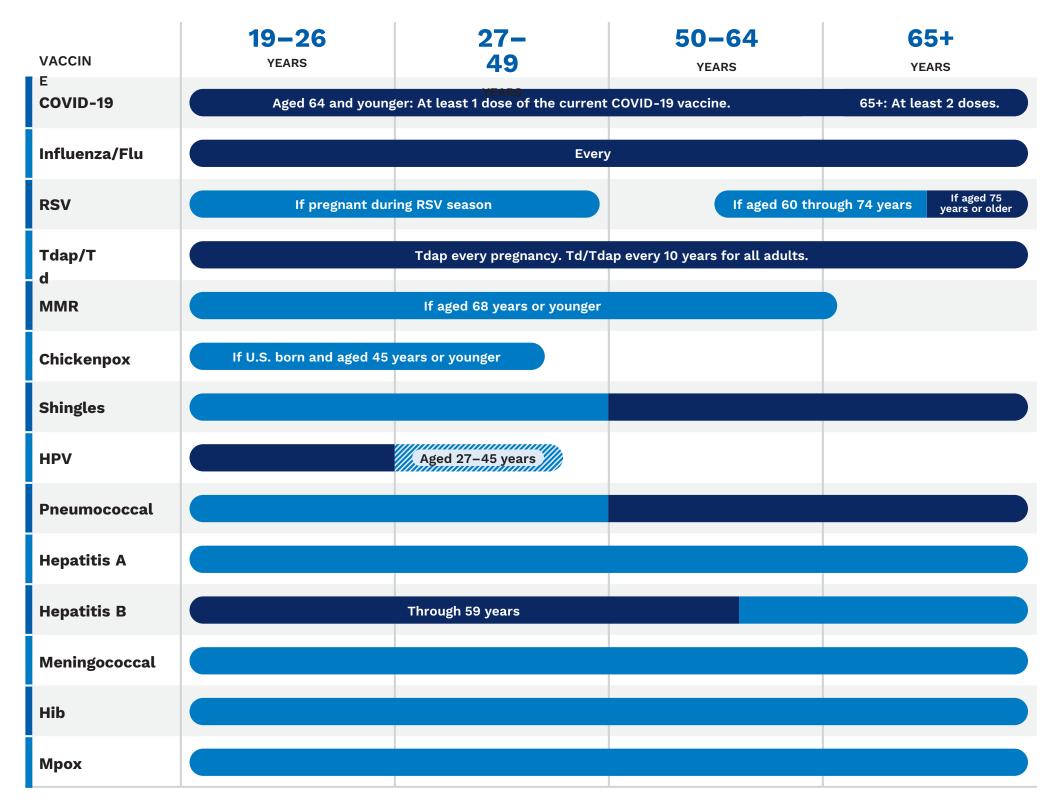
ALL adults in age group should get the vaccine.



SOME adults in age group should get the vaccine.



Adults should talk to their health care provider to decide if this vaccine is right for them.

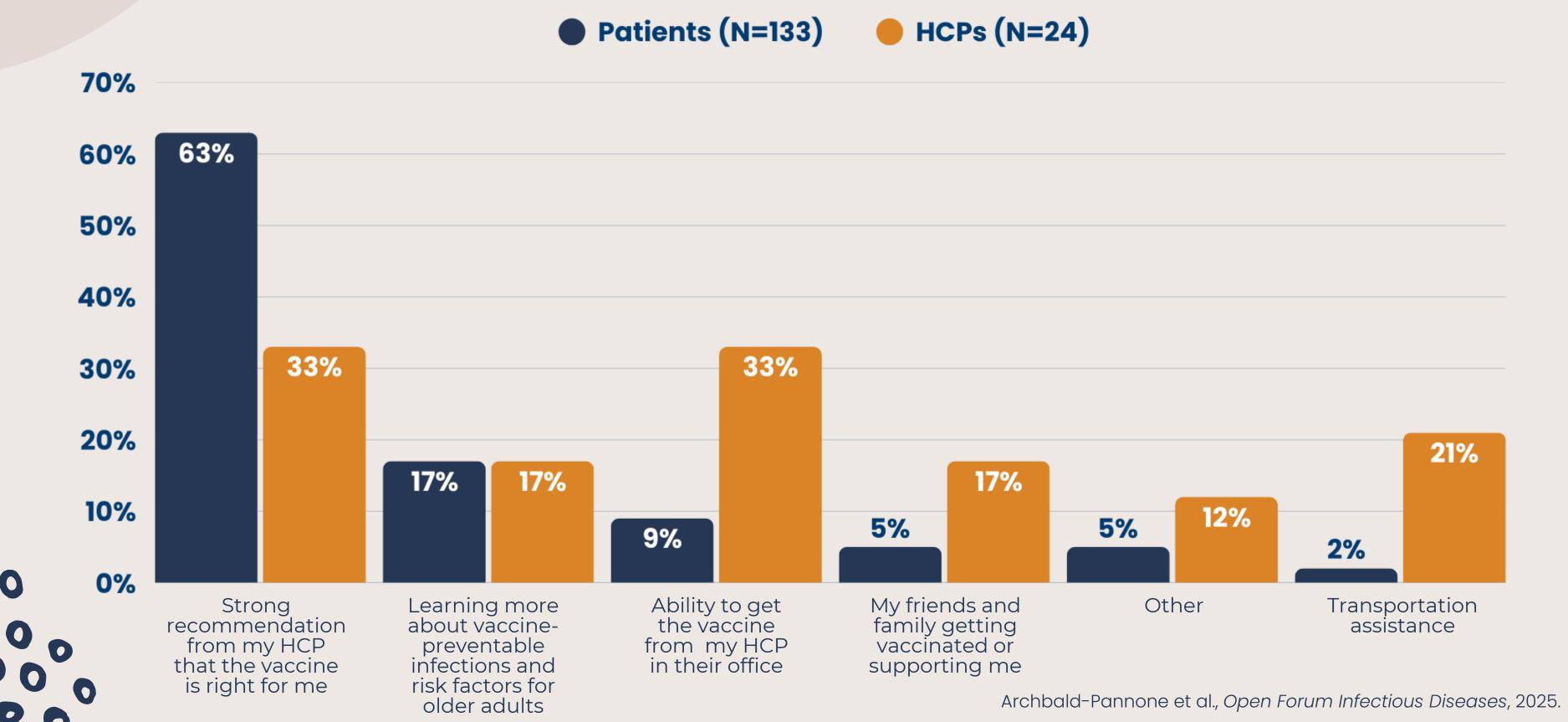








Patient and HCPs' Perspectives on Motivators for Older Adults to Get Vaccinated





YOUR RECOMMENDATION MATTERS.

Healthcare providers are by far the most trusted source of advice when it comes to making health care decisions like vaccines.

Over 83% of patients and caregivers cited doctors and healthcare providers as a trusted source.

RECOMMENDING VACCINES

Start with presumption

Strong provider recommendations are correlated with increased vaccine acceptance versus participatory communication.

Presumptive

"Your child needs the MMR and varicella vaccines today. Any questions?"



Participatory

"How do you feel about shot's today?"



If there is hesitancy...

Pivot to Motivational Interviewing

Motivational interviewing (MI) is a patientcentered, guiding communication style for enhancing a person's own motivation for health behavior change by exploring and resolving ambivalence.

- Open-ended questions
- Ask permission
- Reflect back
- Support autonomy
- Honor ambivalence



If the patient still declines...

Focus on building trust

Maintain a healthy patient-provider relationship by respecting your patient's choice and focus on being a trusted resource.

"I completely respect your decision regarding the vaccine. While I strongly recommend it for your health, I understand it's a personal choice, and we can always revisit it at a future visit. In the meantime, let's focus on what's most important to you right now. What other concerns would you like to discuss today?"

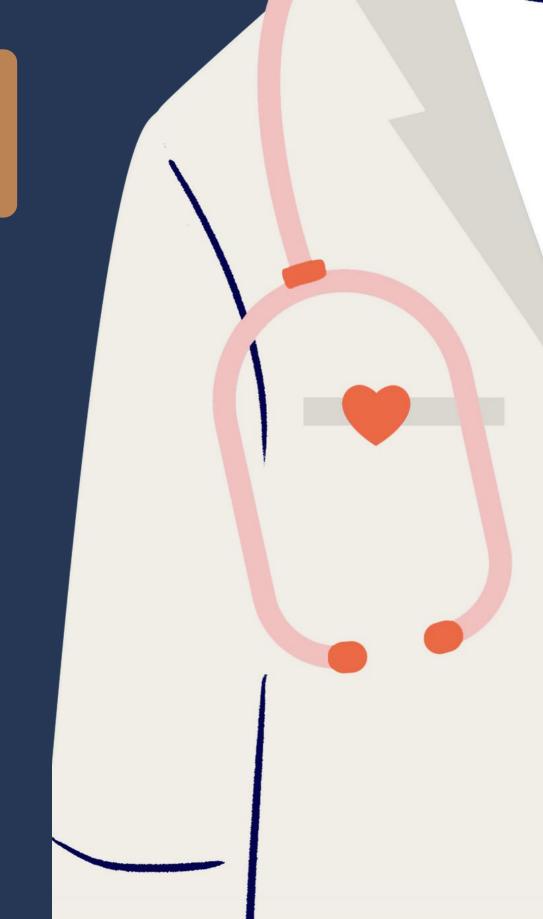
Building Confidence in the Clinic

Provide opportunities for asking questions, discussing concerns, and learning about vaccines.

- Create a safe space for asking questions.
- Offer your knowledge, experience, and trusted resources to colleagues who have questions.

Create a culture of immunization in your department.

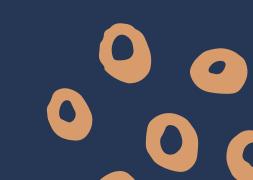
- Reinforce best practices for recommending vaccines.
- Encourage your colleagues to recommend vaccines to all eligible patients.
- Get your annual flu vaccine and make sure you are up to date on your vaccines.



What is the most effective strategy health care professionals can use to motivate older adults to get vaccinated?

- a. Strong recommendation by the health care provider
- b. Provide information on the vaccine-preventable disease
- c. Provide the vaccine during that office visit
- d. Drive them to get their vaccine







Case #1: Shingles Vaccine After Infection

Hi John, it looks like you're caught up on all your vaccines except for the shingles vaccine. Since you're 50 now, I'd like to get that taken care of today. Unless you have any questions, we'll go ahead and get that ready for you and you'll be on your way.

Well I've actually already had shingles, so I shouldn't need the vaccine.

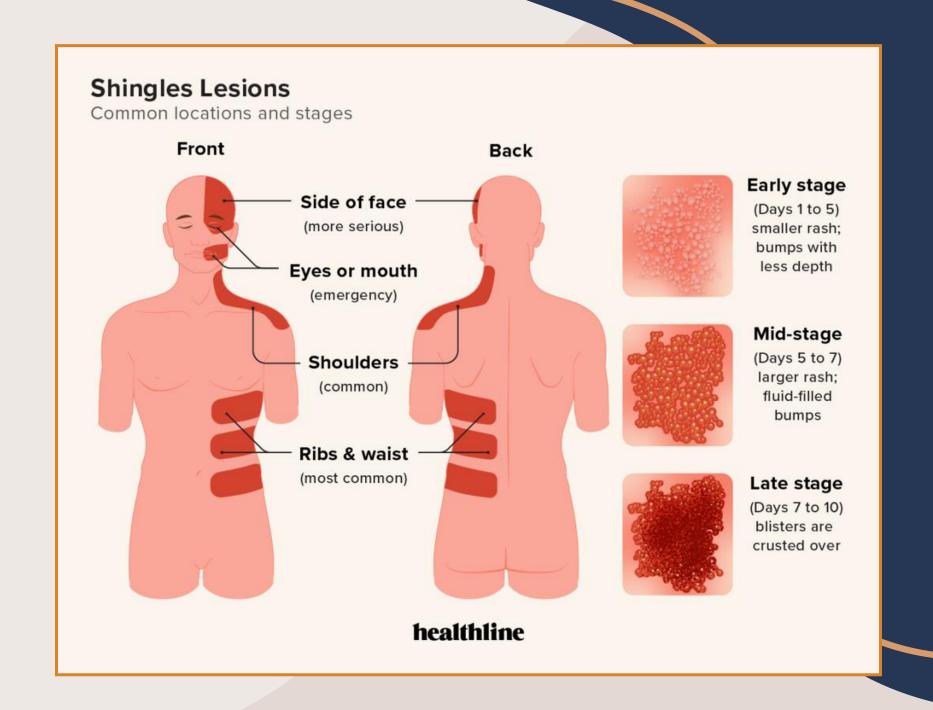
Although you've already had shingles, it is still important for you to be vaccinated. Can I share some additional information about why I think it's still important for you?

Sure.

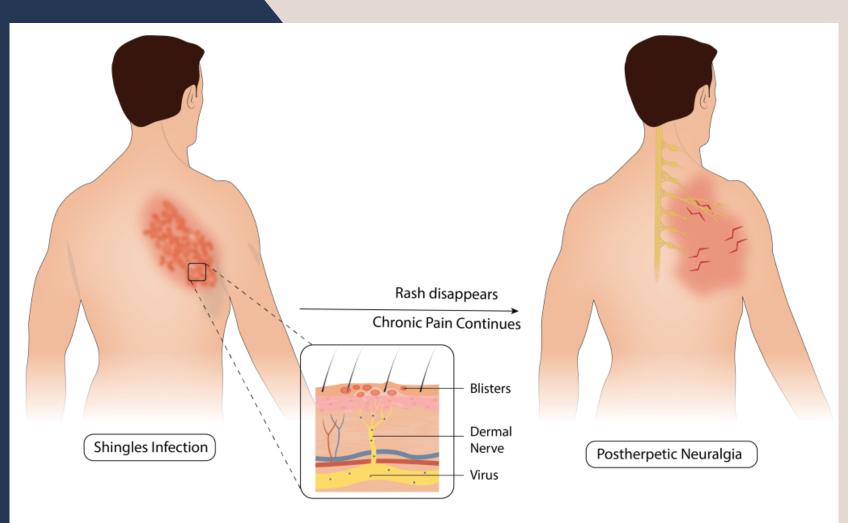


ABOUT SHINGLES

- Painful, itchy, or tingly rash around left or right side of the body.
 - Blisters usually scab over in 7– 10 days, clearing up within 2–4 weeks.
- People who have had chickenpox are at risk of developing shingles.
 - More than 99% of Americans born before 1980 had chickenpox.
- About 1 million people get shingles each year in the U.S.



SHINGLES COMPLICATIONS





Postherpetic neuralgia (PHN)

- Long-term nerve pain that occurs where the shingles rash was located, and can last for months or years after rash subsides.
- About 10-18% of people who have shingles also experience PHN.
- Older adults with shingles are more likely to develop PHN and have longer lasting and more severe pain.
- Vision loss
- Bacterial infections
- Rarely: Pneumonia, hearing problems, encephalitis, death

RECOMMENDATIONS FOR THE SHINGLES VACCINE

Shingrix (recombinant zoster vaccine or RZV)

- Recommended for adults 50 years or older (and for adults 19 years and older who are immunocompromised)
- Two doses administered 2-6 months apart
- Do NOT administer during a shingles outbreak or when someone is taking antiviral medications



SPECIAL CONSIDERATIONS FOR THE SHINGLES VACCINE

The shingles vaccine should be administered to those who have already had shingles in order to reduce the risk of future attacks.

- Study of recurrent shingles (N=17,413):
 - About 4% had another outbreak after a first-time shingles attack
 - Ages 45-54 had recurrence after ~2 years on average
 - Ages 55+ had recurrence after ~3 years on average
 - Those with weakened immune systems at higher risk of second shingles attack

Patients should receive Shingrix even if they have already received the Zostavax vaccine.

 Consider the patient's age and when they received Zostavax to determine when to administer Shingrix

SHINGLES VACCINE

- Causes a strong immune response, and can have strong side effects
 - Sore arm, redness, swelling at injection site, mild or moderate pain, fatigue, muscle pain, headache, shivering, fever, stomach pain, nausea
 - Side effects subside on their own in about 2-3 days
 - More common in younger people

EFFECTIVENESS OF SHINGRIX	Preventing Shingles	Preventing PHN
Adults ages 50- 69 years	97%	91%
Adults ages 70 years and older	91%	89%
Adults with weakened immune systems	68-91% (depending on condition affecting immune system)	89%

Case #1: Shingles Vaccine After Infection

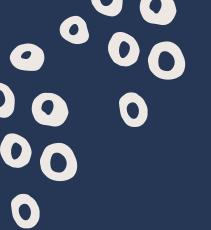
The shingles vaccine can prevent future reoccurrence of shingles. Two doses of Shingrix vaccine, given to adults 50-69 years old, has been found to be 97% effective at preventing shingles and 91% effective at preventing the most common complication of shingles – postherpetic neuralgia, or long-term nerve pain.

Getting vaccinated is the best way to protect you from developing shingles again in the future. Do you have any questions about any of that?

No, that makes sense. I don't want to get shingles again – it was brutal. If you think it is a good idea, I'll get it.

I highly recommend the shingles vaccine to all my eligible patients. I think you're making a great choice for your health. I'll go ahead and get it ready!



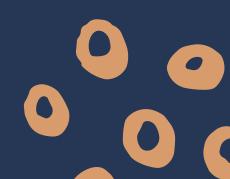


True or False?

Adults who have already had shingles do not need to receive the shingles vaccine.

False.

Even if someone has had shingles, they are still recommended to receive the shingles vaccine to help prevent future occurrences.



Approved Versus Recommended: RSV Vaccines

Case #2: RSV Vaccine for Adults Under Age 60

Hey, before I forget – I wanted to ask about the RSV vaccine. I heard the FDA approved one for adults over 50, and I've been thinking about getting it.

Sure, I'm glad you brought it up. What's got you thinking about it?

Well, I help take care of my grandson a few days a week and he's only three months old. I'd hate to be the one to bring something home to him, especially with RSV being so dangerous for babies.



ABOUT RSV & OLDER ADULTS

- Adult infection is usually mild
 - Symptoms generally limited to those associated with upper respiratory tract infection (rhinorrhea, pharyngitis, cough, headache, fatigue, and fever)
 - Symptoms usually resolve in 1-2 weeks
- Can be dangerous for adults ages 60 and older, and can lead to serious conditions:
 - Hospitalization: Estimated 100,000 150,000 adults 60+ years old in the U.S. are hospitalized due to RSV each year
 - Pneumonia
 - More severe symptoms for people with COPD, congestive heart failure, or asthma

RECOMMENDATIONS FOR THE ADULT RSV VACCINE

The CDC recommends RSV vaccination for:

- All adults ages 75 years and older
- Adults ages 60-74* who are at increased risk for severe RSV
 - Risk factors associated with increased risk for severe RSV disease:
 - Chronic lung disease
 - Chronic cardiovascular disease
 - Chronic liver disease
 - Chronic or progressive neurological or neuromuscular conditions
 - Chronic hematologic conditions

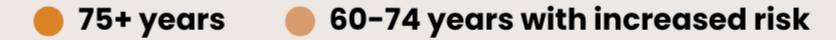
- End-stage renal disease or dependence on dialysis
- Diabetes mellitus with end-organ damage or requiring insulin or SGLT2 inhibitor
- Moderate or severe immunocompromise
- Severe obesity (BMI >40kg/m2)
- Residence in a nursing home

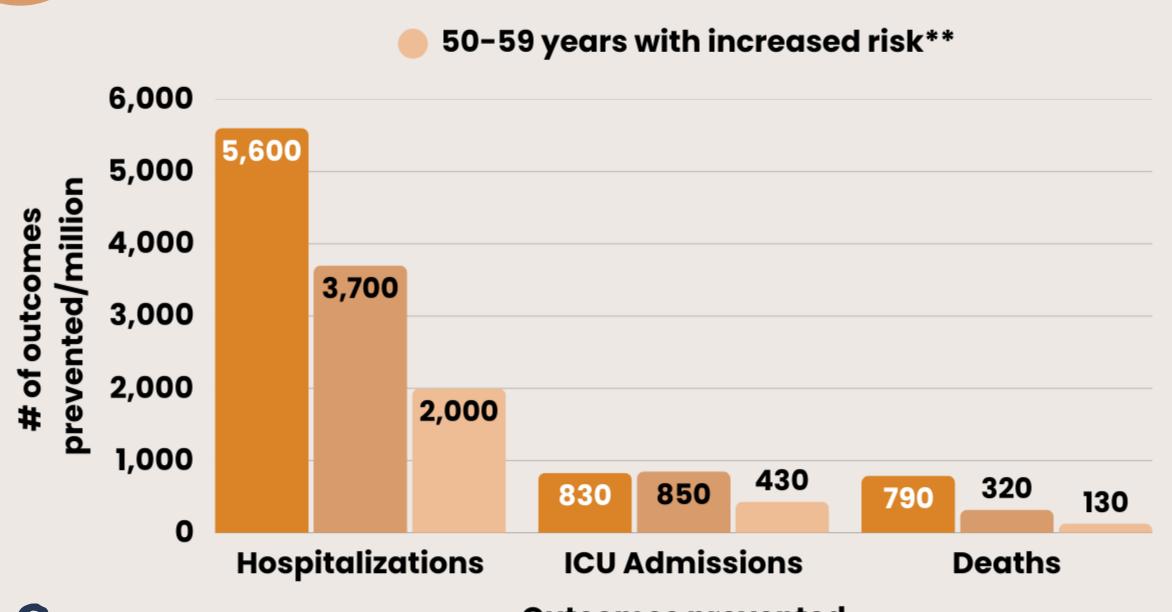
*The ACIP recommends RSV vaccination for adults ages 50-59 at increased risk for severe RSV illness due to underlying conditions. However, these recommendations have not yet been fully adopted by the CDC (4/25/25).

	GSK's Arexvy	Pfizer's Abrysvo	Moderna's mResvia	
FDA Approved U	 Ages 60+ Ages 50-59 with increased risk of severe RSV 	 Ages 60+ Ages 18-59 with increased risk of severe RSV 	• Ages 60+	
ACIP/CDC Recommendation	 Ages 75+ Ages 50-74 with increased risk of severe RSV (only GSK's Arexvy and Pfizer's Abrysvo are approved for ages 50-59; Moderna's mResvia is approved for ages 60+) Ages 18+ who are pregnant (only Pfizer's Abrysvo is approved for this recommendation) 			
Effectiveness	2023-24 RSV season effectiveness in ages 60+: • Prevent ED: 77% • Prevent hospitalization: 83%	2023-24 RSV season effectiveness in ages 60+: • Prevent ED: 79% • Prevent hospitalization: 73%	Real-world vaccine effectiveness data unavailable. Clinical trial efficacy in ages 60+: • Prevent LRTD with 2+ signs/symptoms: 83.7% • Prevent acute respiratory disease: 68.4%	
Length of Protection	Prevented symptomatic RSV in ages 60+ for about 23 months	Prevented symptomatic RSV in ages 60+ for about 18 months	Trial efficacy in preventing symptomatic RSV in ages 60+: • First 4 months: 80% • First 12 months: 56%	

ADULT RSV VACCINES & RISK OF GBS

Per 1 million doses of protein subunit RSV vaccines administered to adults:





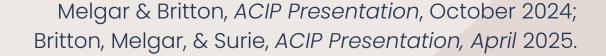
0-18 attributable cases of GBS per 1 million people vaccinated.

While RSV vaccines have been linked to an increased risk of GBS in a few cases, the reported rates remain low.



^{*}Estimated from self-controlled case series analysis through FDA-CMS partnership data among adults aged 65+ years, 42-day risk interval.

**Absolute risk from adults 65+ years applied directly to adults aged 50-59 years.



ADULT RSV VACCINE & REVACCINATION

The RSV vaccine is not currently an annual vaccine, meaning eligible adults do <u>not</u> need to get a dose every RSV season, but research and discussions are ongoing.

GSK's Arexvy:

- Good immune response found following revaccination at 24 and 36 month intervals
- Safety and reactogenicity of revaccination is similar as compared with first dose

Moderna's mResvia:

- Revaccination generally well tolerated; no safety concerns identified
 - No reports of GBS, ADEM, acute myocarditis and/or pericarditis
- Durability of immune response demonstrated out to 24 months
- Revaccination at 12 or 24 months:
 - Restores immune response; met noninferiority criteria
 - Expected to provide comparable vaccine efficacy to that after primary dose

Case #2: RSV Vaccine for Adults Under Age 60

Right now, the RSV vaccine is recommended for adults 75 years and older and adults ages 60-74 at increased risk of severe RSV. There is also a recommendation for adults 50-59 at increased risk that is still being discussed. Since you're 55 and otherwise healthy, it's not routinely recommended for you right now.



That's a good question. The way the vaccine works, it mainly protects the person getting the shot, rather than preventing spread to others. So it wouldn't give your grandson direct protection. It's different from something like the whooping cough, or Tdap, vaccine, where we do recommend adults get it to create a cocoon of protection around the newborn.

Ah, okay. So it wouldn't really help him much if I got it?



Case #2: RSV Vaccine for Adults Under Age 60

Probably not in a meaningful way, no. What's more effective is being really mindful of hygiene – washing hands, not visiting if you feel sick, and limiting close contact during cold season if you're under the weather.

Also, the pediatrician may have talked with your grandson's parents about options like maternal RSV vaccination during pregnancy or the antibody shot for infants, which is what gives the baby direct protection.

Got it. I just wanted to be sure I was doing everything I could.

And you are. Asking about this shows how seriously you take it, which is great. If guidelines ever change or if you develop any health conditions that put you at higher risk, we can definitely revisit it.

Sounds good. Thanks for explaining all that – it can get confusing.

Shared Clinical Decision-Making: HPV Vaccine

Case #3: Shared Clinical Decision-Making

Okay, it looks like you're up to date on most of your vaccines.

Since we discussed your change in relationship status, I

wanted to ask – have you ever had the HPV vaccine?



No, I don't think I did. I was with my high school boyfriend for a long time, and it just never really came up.

That's good to know, thank you for sharing that. We usually give it to those in their teens or early twenties, but for adults ages 27-45, like yourself, we can still consider it based on your individual risk and preferences.

Okay. Is it still worth getting now?



CONSIDERATIONS FOR HPV VACCINE FOR ADULTS

Shared clinical decision-making (SCDM) is recommended for adults ages 27-45 who have not received the HPV vaccine.

- HPV vaccination does not need to be discussed with most adults in this age group.
- HPV vaccination prevents new HPV infection, it does not treat existing HPV infection or disease.
- Vaccine effectiveness is highest in people who have never had sex, as most adults who have had sex have been exposed to HPV before.
- Adults with fewer HPV risk factors (e.g., few or no previous sex partners) might not have been infected with HPV in the past, so might have a higher chance of being infected from a new sex partner in the future.



At any age, having a new sex partner is a risk factor for getting a new HPV infection. However, this is only one possible consideration for SCDM.

Case #3: Shared Clinical Decision-Making

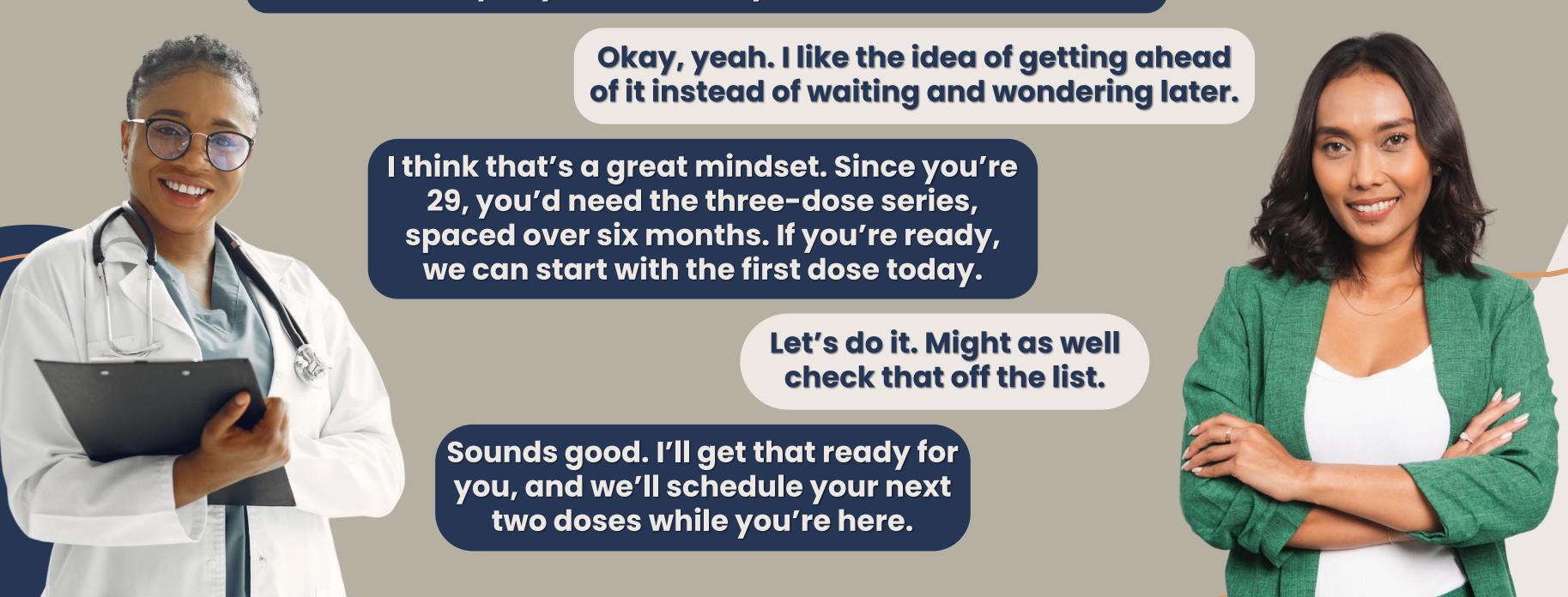
It can be. The vaccine protects against certain strains of HPV that can cause cervical cancer and genital warts. It works best before someone's exposed to the virus, but even if you've been sexually active, it may still offer protection against types you haven't encountered. Since you're newly single, if you think you might be dating or starting new relationships in the future, the vaccine could give you some added protection going forward.

Yeah... honestly, it's been a weird adjustment after so many years, but I guess dating again might be in the cards eventually.



Case #3: Shared Clinical Decision-Making

That makes sense. It's a big transition, and it's smart to be thinking ahead. The vaccine is very safe, and some people in your situation choose to get it just for that added peace of mind. It's up to you and what you are comfortable with.



Coadministration & Vaccine Necessity: COVID-19 & RSV

Case #4: COVID-19 & RSV

Alright Jennifer, we're almost done with your physical to get you admitted to the nursing home. It looks like you've already had your flu shot, but before you go, we'd like to vaccinate you against RSV and COVID-19 today. Any questions?

I'm not really sure about getting another COVID vaccine – especially at the same time as the RSV one. I already got a COVID shot in October, and I just don't think I need another one.

I've heard similar concerns from a lot of my patients. Would it be okay if I provide some more information on why I think it's important for you?

That's fine, but I'm not sure that it will change my thoughts.

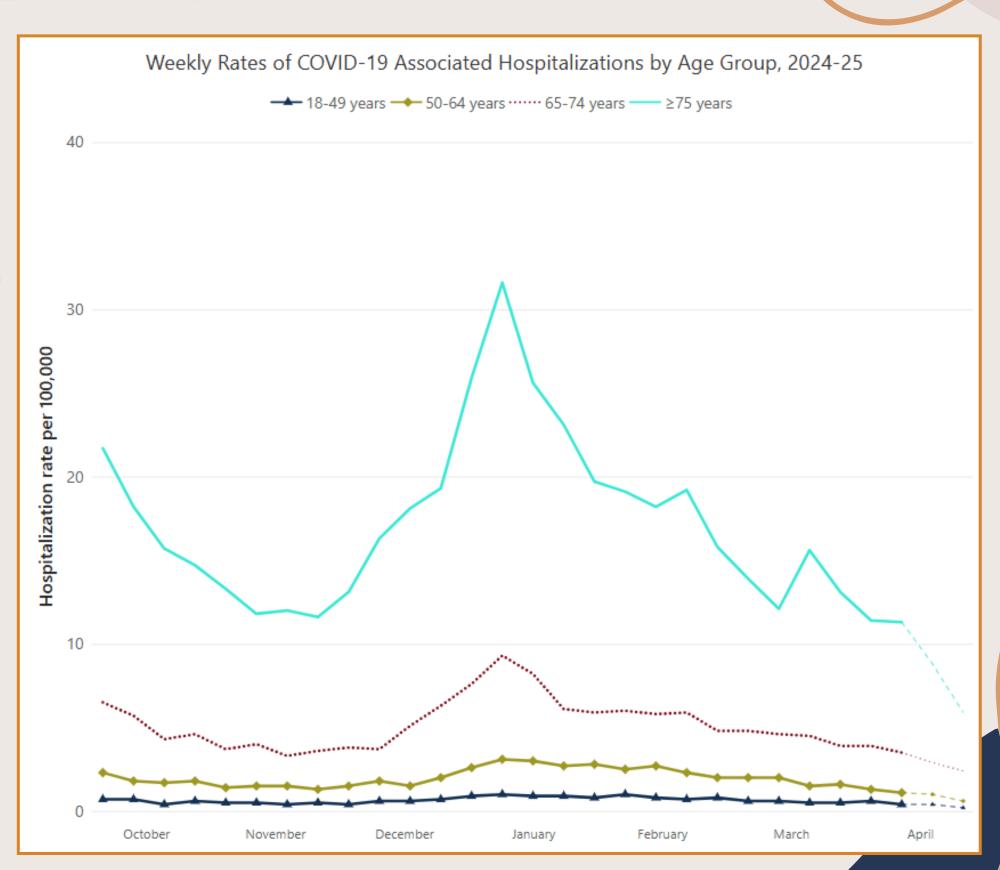
That's okay, I just want you to have everything you need to make an informed decision.



ADULTS & COVID-19

- Adults ages 65+ comprise more than ¾ of all COVID-19associated hospitalizations among adults.
- ~ 1 in 5 adults hospitalized due to COVID-19 were admitted to the ICU.
- During this period, 80% of all adults hospitalized with COVID-19 who died inhospital were ages 65+.
- Most adults hospitalized with COVID-19 had received no COVID-19 vaccine since September 2022.

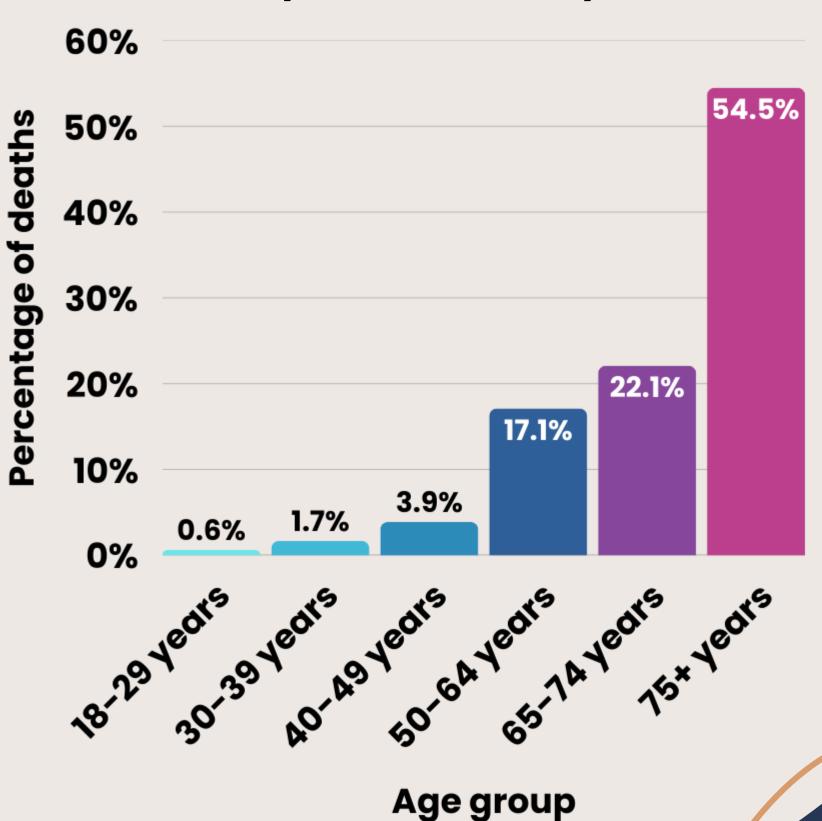
CDC, COVID-NET, Accessed 4/25/2025; Havers, ACIP Presentation, April 2025.



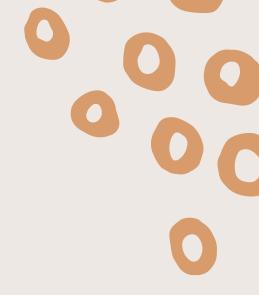
ADULTS & COVID-19

- More than 81% of COVID-19 deaths occur in people over age 65
- Number of deaths among ages 65+ is 97x higher than among ages 18-29

COVID-19 deaths by age, January 2020 - February 2025



COMMUNITY LIVING & COVID-19





of nursing home residents received a 2024-2025 COVID-19 vaccine as of November 10, 2024.

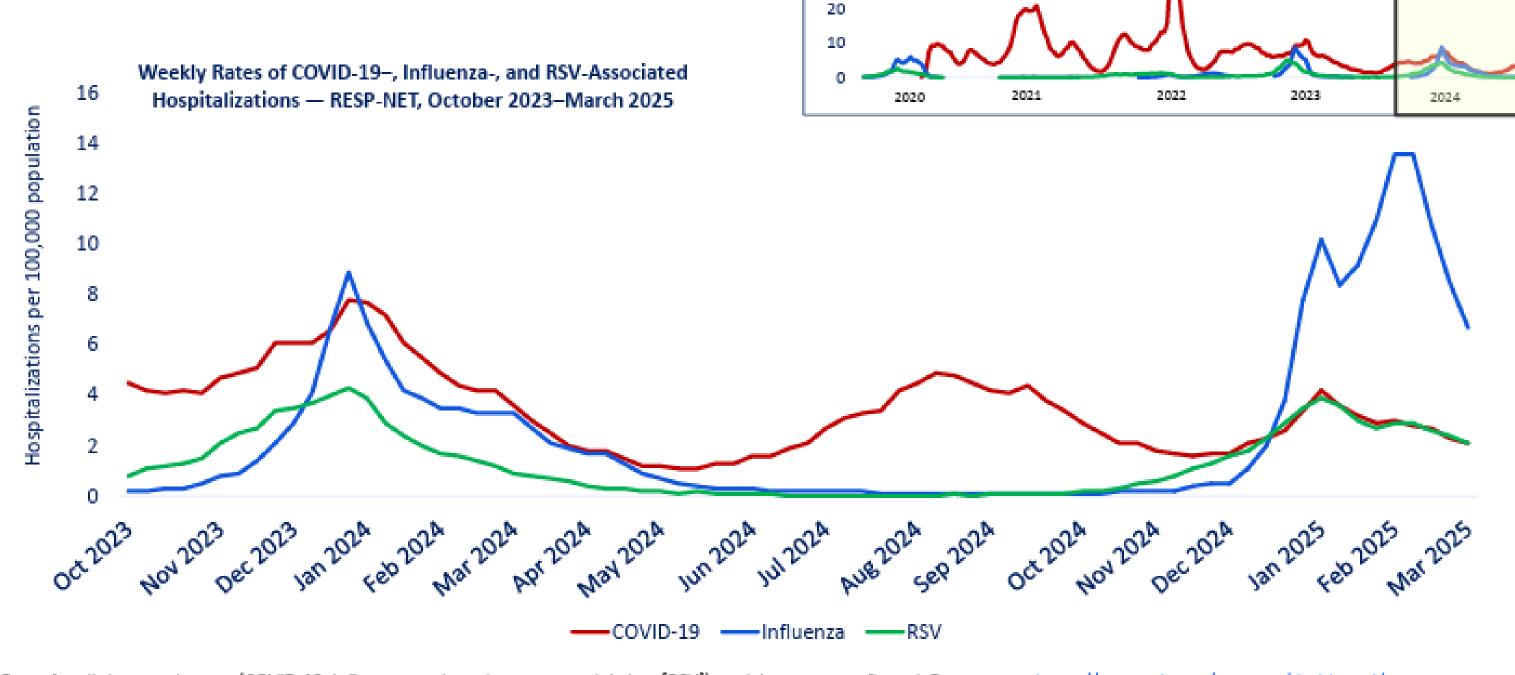
Risk for COVID-19-associated hospitalization is increased among community-dwelling adults 18+ years old with **underlying medical conditions**.



COVID-19 hospitalization rates have had both winter and summer peaks.

30

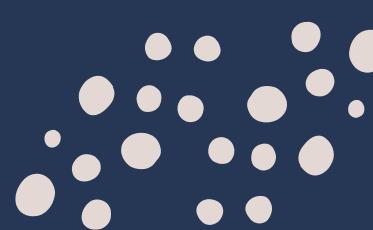
Rates of COVID-19, influenza, and RSV hospitalization — RESP-NET, 2020-2025





COVID-19 VACCINE RECOMMENDATIONS

- CDC recommends everyone ages 6 months and older receive a 2024-2025 COVID-19 vaccine
 - Adults 65+ years should receive 2 doses of the vaccine, spaced 6 months apart
 - Immunocompromised individuals should also receive 2 doses spaced 6 months apart
- Coadministration with other vaccines is safe and effective
 - Additional considerations for COVID-19 and mpox vaccine coadministration



COVID-19 VACCINE & PREVENTING COMPLICATIONS

- Studies have shown mRNA COVID-19 vaccines provide some benefit in preventing Long COVID.
 - 70% of decline in Long COVID cases from pre-Delta to Omicron eras attributable to vaccination
 - 3 doses of original monovalent vaccine prior to infection associated with reduced likelihood of Long COVID symptoms in adults:
 - 63% for gastrointestinal symptoms
 - 44% for neurological symptoms
 - 52% for other non-specific symptoms
- The bivalent COVID-19 vaccine (2022-2023) added protection against thromboembolic events compared to receiving only the original monovalent vaccines.

Case #4: COVID-19 & RSV



Because of your age and new living situation, you're at higher risk of being exposed and getting very sick from COVID. In fact, most people hospitalized with COVID last year were older adults. We recommend individuals over 65 get two doses of the COVID vaccine, spaced 6 months apart, so that those most at risk for getting very sick have all the protection they need. We've also seen a trend of mild summer waves of COVID infections, so this extra dose may provide additional protection for you during this time. I'd also like to get you vaccinated against RSV, as it can cause serious problems for older adults. It's safe and effective to get both of these vaccines at the same time, and getting them today will make sure you are protected as early as possible. Some people feel a little achy or get a low fever after the vaccines, but these symptoms usually go away in a day or two. Do you have any questions about any of that?



Case #4: COVID-19 & RSV

I appreciate the information, but I just don't know about getting them both today. It still makes me nervous.

That's understandable, and ultimately this is your decision. On a scale of 1 - 10, how confident are you getting vaccinated against RSV and COVID today?

I'd say 5. Honestly, I'm okay with receiving them both based on the information you provided, but not all at once.





Case #4: COVID-19 & RSV

It's great to hear you're open to both of them. So you said you're at a 5. What would get you to a 6 or 7?

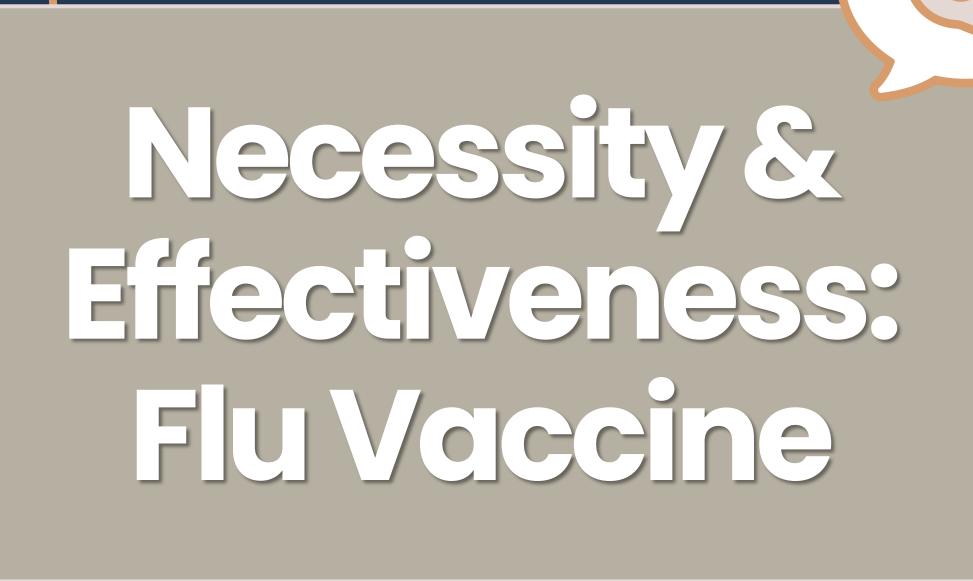
Maybe just getting the RSV shot today, and then doing COVID another time?

Sure, we can do that. I'll get the RSV vaccine ready today, and we'll get you scheduled to come back for the COVID shot before you go.

Thank you, I think that will make me feel more comfortable.

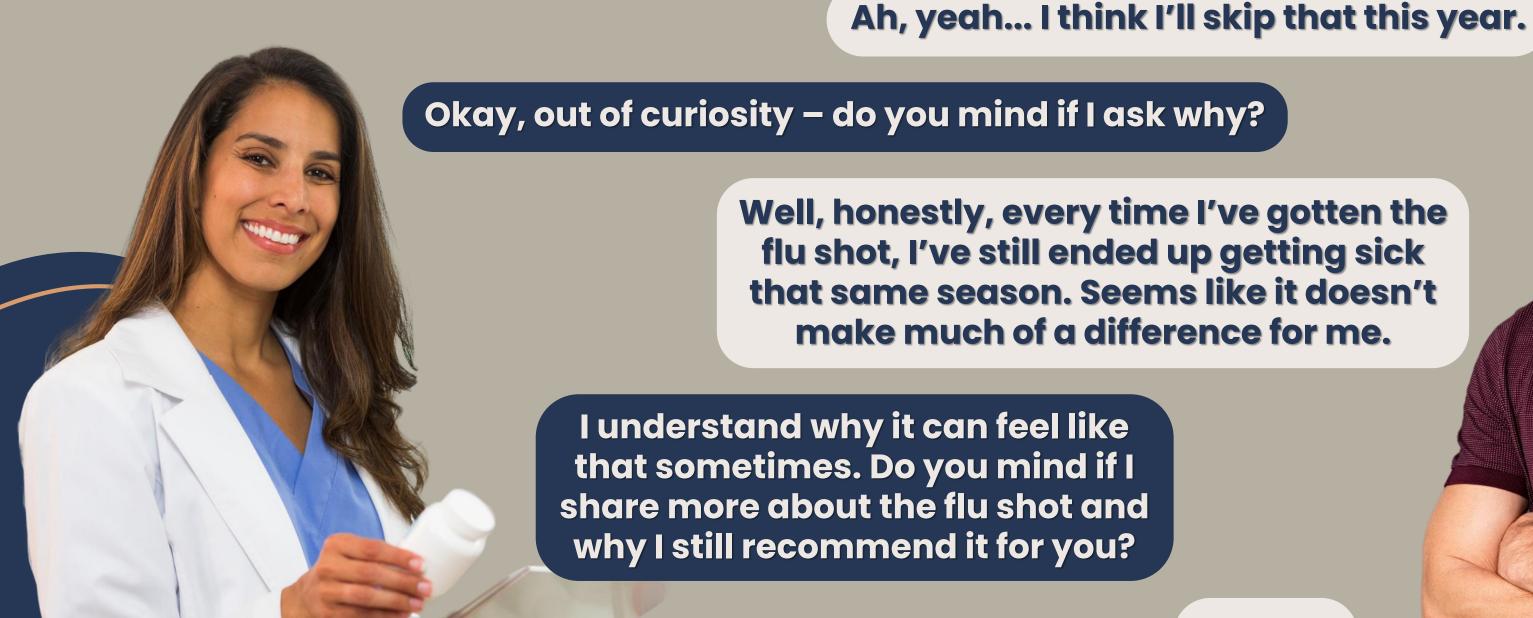




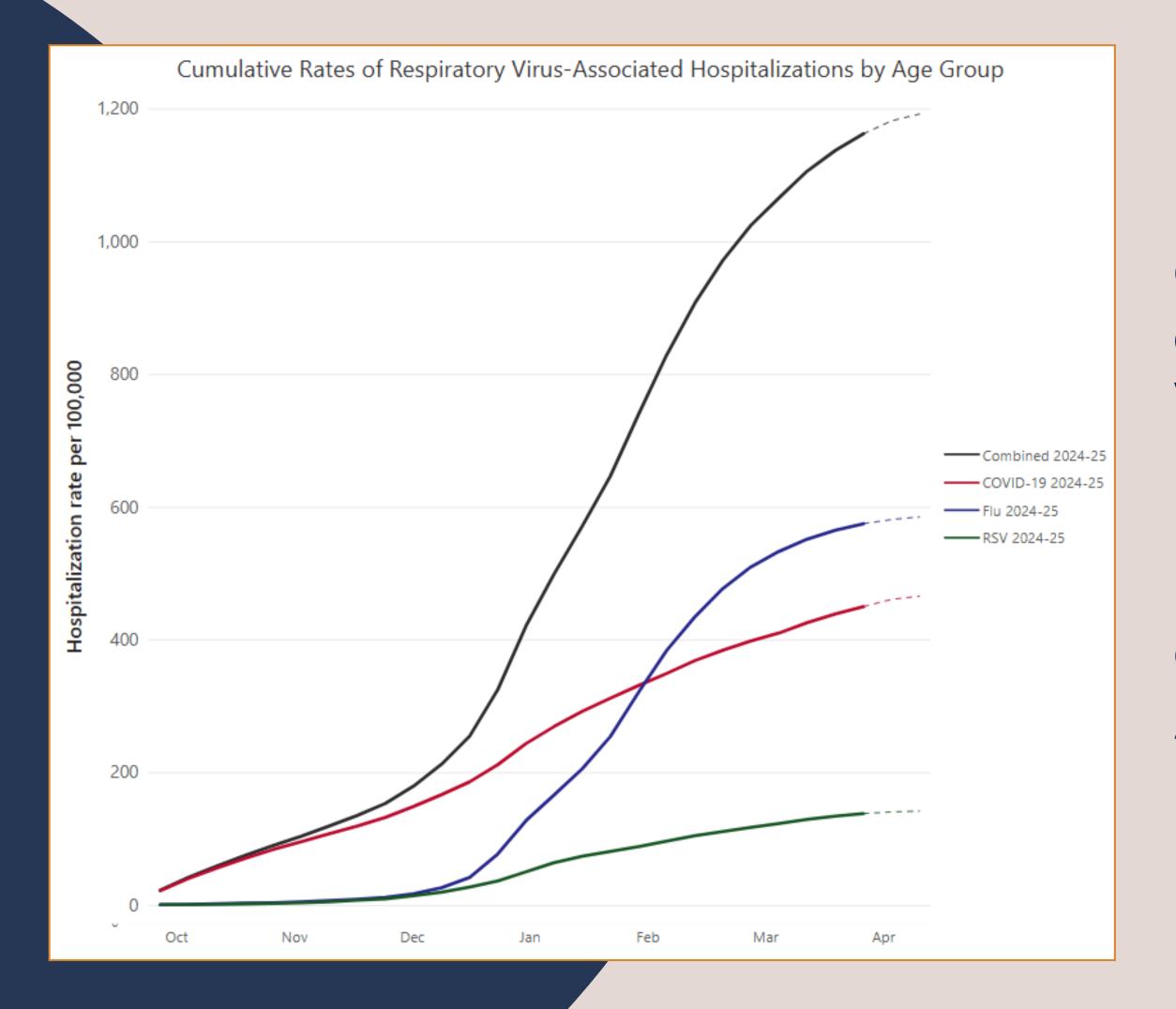


Case #4: Flu Vaccine

Hi again, Mark. Looks like we've got your blood pressure and cholesterol meds ready. While you're here, just a quick reminder that we're offering flu shots here at the pharmacy!

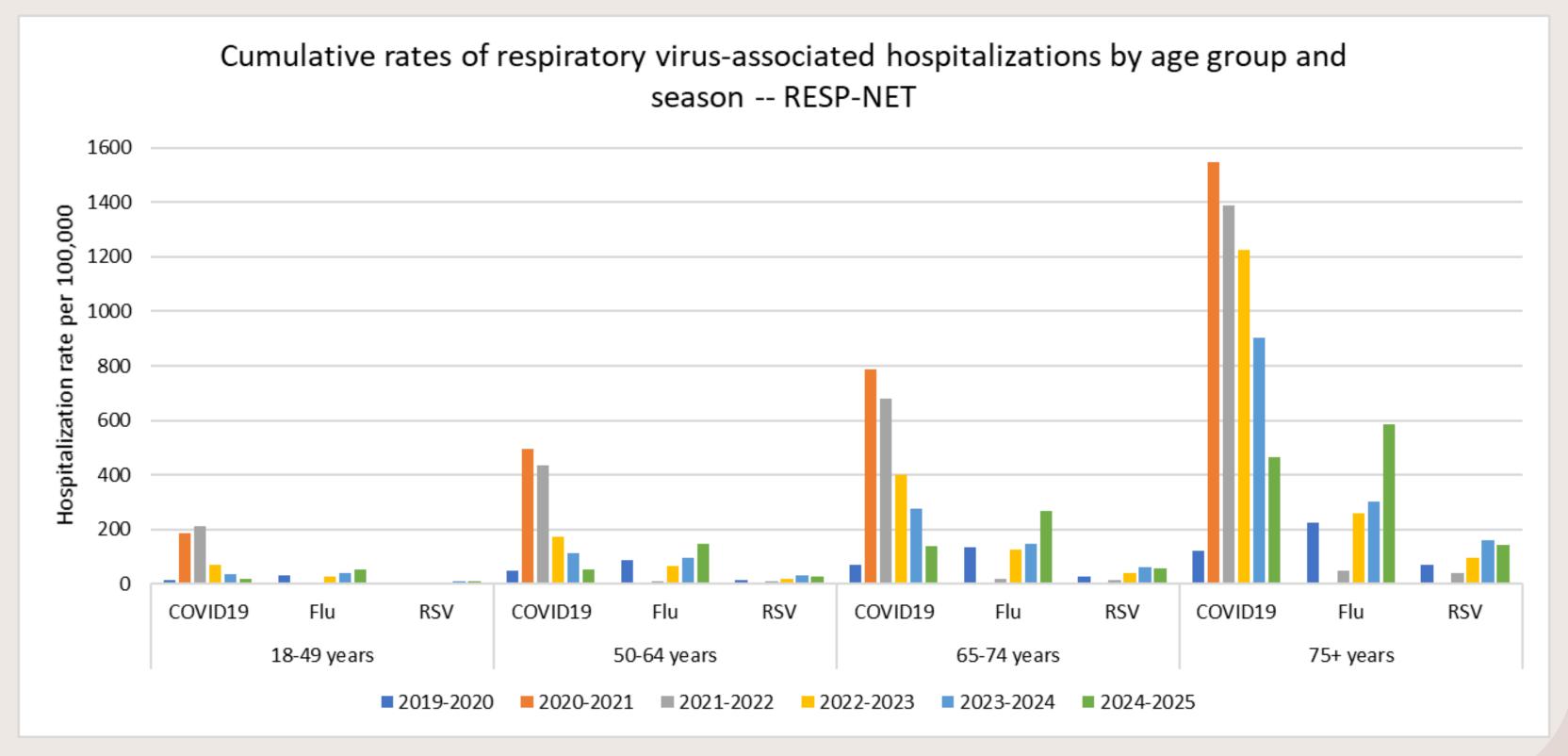


I guess.



Cumulative Rates of Respiratory Virus-Associated Hospitalizations in Adults 18+ - RESP-NET, October 2024 - April 2025

ADULTS & INFLUENZA





ADULTS & INFLUENZA

more likely to have a **heart** more likely to have a **he** attack in the week after being diagnosed with flu

risk of acute cardiovasc events in older patients risk of acute cardiovascular after mild infection

of adults with flu had an acute cardiac event 30% were admitted to the ICU, and 7% died while in the hospital



ADULTS & INFLUENZA

"It is important to note, however, that even though young children and older adults are most vulnerable to complications from the flu, the most severe forms of flu that we have seen have not affected those groups the most. Instead, the most infectious and serious strains of influenza – such as the strain that caused the 1918 worldwide pandemic – have more often affected young, healthy adults. Most cases of death associated with severe flu strains have been in younger adults who were otherwise healthy."
-Dr. Tina Ardon & Dr. Stephen McMullan,
Family Medicine, Mayo Clinic, Jacksonville, Florida

Weiss, Mayo Clinic Q&A, 2022.

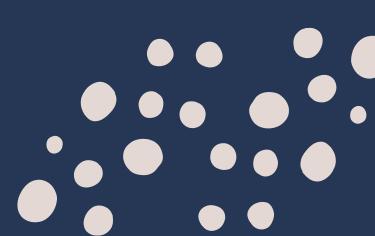
ADULTS & INFLUENZA VACCINE

Among adults who received a flu vaccine:









Case #4: Flu Vaccine

The flu shot isn't a perfect shield, but it does reduce how severe the illness can get. Even if you still catch the virus, you're less likely to end up with complications – or miss as much work.

Yeah, but it feels like whenever I don't get the shot, I either don't catch the flu or it's super mild. I honestly think I get the flu from the shot itself.

That's definitely a common concern, and it can be frustrating when it feels like you're doing the right thing and still ending up sick. I can assure you though – the flu shot can't make you sick, since the shot contains a killed or weakened version of the virus that can't cause infection. There are some common side effects from the vaccine, like muscle aches, fever, headache, or fatigue, that can sometimes make it feel like the shot made you sick. I do still think it's worth it to prevent severe influenza and reduce the spread of flu as much as we can.



Case #4: Flu Vaccine

I don't know. I'm not anti-vax or anything, but I just don't see myself getting sick enough to the point that would make the shot worth it.

It's definitely your call. I know the flu doesn't seem so bad, but I've heard of some sad cases of perfectly healthy individuals who have gotten very ill from the flu. It also helps protect people around you – like older family, kids, or anyone immunocompromised. I'm not here to pressure you, but I do want to make sure all your concerns are addressed before making a decision.

I appreciate that. I think I'm just going to stick with my meds today, but I'll be back if I change my mind.

Of course. Always feel free to stop by or call with any questions.





Select all that apply:

Which of the following vaccines are recommended for adults annually?

a. Shingles

b. RSV

c. COVID-19

d. Influenza







QUESTIONS?

